

Category 6A (10G) UTP Solid Cable



Description

The Digi-Link P800 solutions include a new type of 4 pair cable designed to give channel performance exceeding augmented category 6 channel specifications and in addition has substantially improved Alien Crosstalk performance.

Applications

Digi-Link P800 Horizontal cables support all presently available and future LAN applications, including the following protocols:

- 1000BASE-TX Gigabit Ethernet Over Category 6 (TIA/EIA-854-2001)
- 1000BASE-T Gigabit Ethernet
- 100BASE-T Fast Ethernet
- 100BASE-TX
- ATM 25
- Broadband and Baseband Video
- ISALAN
- ATM 155
- 100BASE-T2
- Token Ring 100 Mbps
- 10BASE-T Ethernet
- ISDN Basic and Primary Access
- ITU V.21 and X.11
- TP-PMD
- 100BASE-T4
- ATM 52
- Token Ring 4 Mbps and 16 Mbps
- 1BASE-5 Starlan

Benefits and Features

The cable designs have been dramatically enhanced with twist accuracy and incorporate a round smooth shape for better handling and termination process and minimizes variation in Alien Crosstalk performance. The cables have been designed to withstand the most challenging test configuration representative of real life installation including large cable bundles. This is a Powersum computation of the Alien crosstalk noise from 24 pairs of 6 channels surrounding a single 4-pair channel. P800 cables have been optimized to 800 MHz to support high bandwidth applications operating at 10Gbps.

- ✓ Electrical performance guaranteed to meet or exceed the channel specifications of the proposed TIA Augmented Category 6 and ISO/IEC specifications.
- ✓ 4 pair construction with finned inner jacket surface and bisector centre member provides the extra margin of performance required for bandwidth applications.

Physical and Mechanical Properties

Weight:	48.51 lbs (22 kg/305 m)**
Nominal Jacket Thickness :	0.057 in(1.45 mm)
Nominal Outside Diameter:	0.315 in (8 mm)
Maximum Pulling Tension:	25Lbs (11.34 Kg)
Operating Temperature :	4°F to 140°F (-20°C to 60°C).

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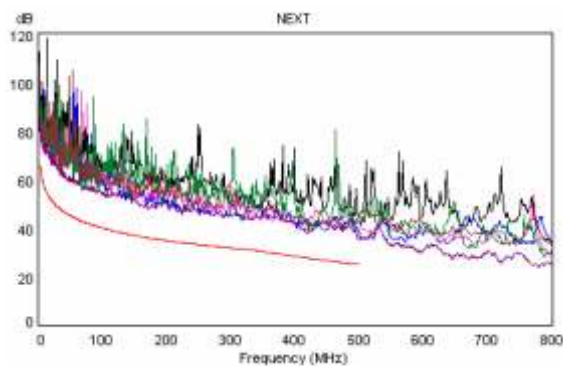
Performance Characteristics TIA/EIA-568-B2-10

FREQUENCY (MHz)	INSERTION LOSS (Attenuation) dB/100m		NEXT (db)		PSNEXT (db)		ELFEXT (db)		PSELFEXT (db)		RETURN LOSS (db)	
	Standard	Digi-Link	Standard	Digi-Link	Standard	Digi-Link	Standard	Digi-Link	Standard	Digi-Link	Standard	Digi-Link
1.00	2.1	1.9	74.3	90.5	72.3	88.6	67.8	82.6	64.8	80.8	19.1	31.5
4.00	3.8	3.1	65.3	85.9	63.3	82.8	55.8	70.0	52.8	68.8	21.0	36.4
8.00	5.3	4.3	60.8	72.0	58.8	71.6	49.7	64.2	46.7	63.2	21.0	33.1
10.00	5.3	4.8	59.3	75.9	57.3	72.7	47.8	62.8	44.8	61.9	21.0	32.7
16.00	5.9	6.1	56.2	71.5	54.2	69.8	43.7	58.7	40.7	58.1	20.0	34.3
20.00	7.5	6.8	54.8	70.9	52.8	67.9	41.8	57.7	38.8	56.5	19.5	33.4
25.00	8.4	7.6	53.3	63.1	51.3	61.7	39.8	56.7	36.8	55.1	19.0	31.6
31.25	9.4	8.6	51.9	68.1	49.9	64.7	37.9	51.7	34.9	50.1	18.5	32.5
62.50	10.5	12.4	47.4	65.8	45.4	62.0	31.9	44.6	28.9	43.9	16.0	28.2
100.00	15.0	15.9	44.3	56.7	42.3	53.5	27.8	41.4	24.8	39.7	14.0	24.9
200.00	19.1	23.0	39.8	49.2	37.8	47.2	21.8	31.8	18.8	30.7	11.0	20.2
250.00	27.6	26.0	38.3	45.4	36.3	41.9	19.9	31.7	16.9	30.3	10.0	18.1
300.00	31.1	28.9	37.2	41.5	35.2	40.3	18.3	29.4	15.3	27.8	8.4	17.0
400.00	34.3	33.9	35.3	34.5	33.3	33.6	15.8	29.7	12.9	26.5	6.0	14.6
500.00	40.1	38.4	33.8	29.1	31.8	27.7	13.9	26.3	11.0	24.5	6.0	12.9
600.00	**	40.2	**	32.6	**	31.8	**	40.5	**	23.3	**	15.0
700.00	**	43.4	**	31.4	**	30.6	**	28.4	**	27.1	**	14.9
800.00	**	47.0	**	29.9	**	28.2	**	21.0	**	23.4	**	13.7

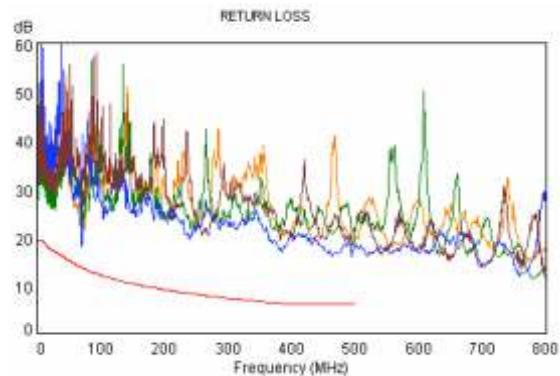
** Extrapolated Values

Characteristic Impedance	100±6 Ω @ 1-600 MHz
DC Resistance	72 Ω/km max.
Resistance unbalance	2% max.
Capacitance	45 pF/m nom. @ 1 KHz
Cap. Unbalance (wire to ground)	1500 pF/km max. @ 1 KHz.
Voltage rating	72 Vdc max.
Dielectric strength	1500 V/1 minute min rms
Velocity of Propagation (NVP)	67-69%
Insulation Resistance	500 mΩ km (min) @ 500 Vdc
Coupling attenuation	40 dB min @ 30-100 MHz 40-20Log(f/100) @100-600 MHz
Transfer Impedance	N/A

Typical NEXT Loss



Typical Return Loss



Ordering Information

P/N	Description	Size	Colour
DCTCAUTP4P3X	Cat6A (10G) Solid Cable	305m	Grey